

**REMARKS**

Claims 1-19 are all the claims pending in the application.

**35 U.S.C. §103**

*I. Kuehnle as primary reference*

Claims 1-13, 16-17, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuehnle et al. (U.S. Patent No. 5,679,412 [hereafter “Kuehnle”]) in view of Leprince et al. (U.S. Patent No. 5,063,330 [hereafter “Leprince”]) and Sato et al. (U.S. Patent No. 5,961,776 [hereafter “Sato”]) or Watanabe et al. (U.S. Patent No. 6,158,383 [hereinafter “Watanabe”] or Ishii (U.S. Patent No. 6,827,972 [hereafter “Ishii”]).

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kuehnle, Leprince and Sato or Watanabe or Ishii, and further in view of U.S. Ohkawa (U.S. Patent No. 5,225,740 [hereafter “Ohkawa”]).

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kuehnle in view of Leprince and Sato or Watanabe or Ishii and further in view of Doehler et al. (U.S. Patent No. 4,893,584) or Saito et al. (U.S. Patent No. 4,831,963 [hereinafter “Sato ‘963”]).

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kuehnle, Leprince and Sato or Watanabe or Ishii, U.S. and further in view of Tanaka et al. (U.S. Patent No. 4,970,435 [hereinafter “Tanaka”]).

Kuehnle is applied for disclosing a majority of the claimed features. As noted on page 2 of the Office Action, the Examiner asserts that Kuehnle discloses an enclosure and a cavity 52. Applicant respectfully submits that Kuehnle fails to teach or suggest each feature recited in independent claim 1.

Claim 1 recites an enclosure in which the container is placed and which is made of a conductive material. Claim 1 then separately recites a tube which surrounds the container to delimit an internal cavity of the enclosure. An example of this feature is described in the present specification, in the second full paragraph of page 5. As shown in the exemplary embodiment of present Fig. 1, the enclosure, e.g., 12 is a separate feature from the tube, e.g., 16. The tube 16 surrounds the container, e.g., 24 and is a different element than the enclosure 12.

Accordingly, Kuehnle fails to disclose the combination of elements in claim 1, including at least the recited enclosure and tube. The Examiner does not indicate which element is applied against the enclosure and cites element 52 against the claimed cavity. As shown in Fig. 6 of Kuehnle, there is (at best) an enclosure 56 which surrounds the area 52. However, Fig. 6 of Kuehnle does not teach or suggest the claimed *enclosure* and the claimed *tube*.

The secondary references (i.e., Leprince, Sato, Watanabe, Ishii, Ohkawa, Doehler, Saito '963 and Tanaka) are applied against remaining features of the claims, as described on pages 3-5 of the Office Action. Nevertheless, Applicant respectfully points out to the Examiner that the secondary references fail to make up for the teachings of Kuehnle, such that the rejection of claim 1 under 35 U.S.C. § 103(a) should be withdrawn. Dependent claims 2-19 are deemed patentable over the applied art at least by virtue of their respective dependencies upon claim 1.

Further, the Examiner acknowledges that Laurent *does not* explicitly disclose that: 1) the wave guide tunnel has a rectangular cross-section; 2) the cavity is in a tube shape; 3) the wave guide tunnel is projected on a plane tangent to the enclosure; and 3) the smaller dimension of the rectangle corresponds to its dimension along the direction of the axis of the enclosure. (See page 4 of the Office Action, first full paragraph.) The Examiner is requested to revisit these features, so as to further appreciate their significance and patentability over the prior art.

*II. Plester as primary reference*

Claims 1-13, 16, 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plester (U.S. Patent 5,849,366 [hereinafter “Plester”]) in view of Leprince and Sato or Watanabe or Ishii.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable in view of Plester, Leprince and Sato or Watanabe or Ishii and further in view of Ohkawa.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Plester, in view of Leprince and Sato or Watanabe or Ishii and further in view of Doehler or Saito ‘963.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Plester in view of Leprince Sato, Watanabe, Ishii, and further in view of Tanaka.

The Examiner applies Plester in a manner similar to the application of Kuehnle. Plester, likewise, fails to teach or suggest the claimed features for reasons similar to that of Kuehnle. For example, Plester is applied for allegedly disclosing an enclosure and a tube, as recited in claim 1. The Examiner does not particularly point to which elements of Plester are applied against the claimed enclosure and tube.

As recited in claim 1, the coupling device has a wave guide tunnel which is: 1) disposed outside of the tube, 2) extends towards the main axis of the enclosure, and 3) provided within a window of a wall of the enclosure. First, Applicant submits that the coupling device or microwave generator 7 of Plester is not provided in the wall of an enclosure, as recited in claim 1. If the Examiner contends that element 11 of Fig. 2A of Plester is an enclosure, then there is no tube which surrounds the container to delimit an internal cavity of the enclosure. Therefore, Plester fails to teach or suggest the complete combination of elements recited in claim 1, including the claimed enclosure and the tube, in addition to the further recited features regarding

the coupling device and its location, such that the rejection of claim 1 under 35 U.S.C. § 103(a) should be withdrawn, along with the rejection of dependent claims 2-19.

Applicant requests that the Examiner *particularly describe* his position if he attempts to maintain any application of Plester. Based on at least Fig. 2A of Plester, Applicant does not believe that the Examiner could reasonably maintain the rejection after a thorough review of this reference in comparison to the features of claim 1.

*III. Laurent as primary reference*

Claims 1-13, 16, 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laurent, WO 99/17334 in view of Leprince and Sato or Watanabe or Ishii.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Laurent, in view of Leprince and Sato or Watanabe or Ishii, and further in view of Ohkawa.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Laurent in view of Leprince and Sato or Watanabe or Ishii, as applied to claims 1-13, 16-17, and 19 above, and further in view of Doehler or Saito '963.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Laurent in view of Leprince and Sato or Watanabe or Ishii, and further in view of Tanaka.

Laurent is applied as a primary reference, in a manner similar to that of Kuehnle and Plester, as described above.

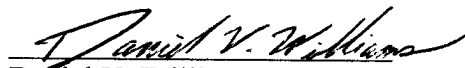
An exemplary difference between present Fig. 1, and Fig. 1 of Laurent is that in present Fig. 1, there is an open space provided between the enclosure 12 and the tube 16, such that the microwaves are propagated into the open space before reaching the tube 16. On the other hand, the coupling device or microwave generator 4 of Laurent is attached to the wave guide 11 and communicates microwaves through a window 10. However, there is no tube in Laurent which

surrounds the container to delimit an internal cavity of the enclosure, such that an open space is provided between the enclosure and the tube, wherein the inside diameter of the enclosure is such that the microwaves are propagated into the open space, between the enclosure and the tube before reaching the tube. Instead, the microwaves of Laurent go directly into the element labeled as 3.1 after going through the transparent window 10. Accordingly, Applicant amends claim 1 to further define this feature. Laurent in combination with the applied secondary references fail to disclose each feature recited in claim 1, such that the rejection thereof under 35 U.S.C. § 103(a) should be withdrawn. The rejection of the dependent claims be withdrawn, at least by virtue of their respective dependencies upon claim 1.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

  
Daniel V. Williams  
Registration No. 45,221

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

WASHINGTON OFFICE  
**23373**  
CUSTOMER NUMBER

Date: December 20, 2007